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**Hydropower Investment
Promotion Project (HIPP)**

POWER MARKET MONITORING PROCEDURES

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POWER MARKET MONITORING PROCEDURES

USAID HYDROPOWER INVESTMENT PROMOTION PROJECT (HIPP)

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IN COLLABORATION WITH BLACK & VEATCH AND PIERCE
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List of Acronyms

ATC	Available Transfer Capacity
BM	Balancing Market
BRP	Balancing Responsible Party
DAM	Day Ahead Market
DSO	Distribution System Operator
ESCO	Electricity System Commercial Operator
FERC	Federal Energy Regulatory Commission
GNERC	Georgian National Energy and Water Supply Regulatory Commission
HIPP	Hydropower Investment Promotion Project
ISO	Independent System Operator
MCP	Market Clearing Price
MO	Market Operator
NE	New England
OTC	Over the Counter
RTO	Regional Transmission Organization
SA	Settlement Administrator
TSO	Transmission System Operator

I. INTRODUCTION

The Georgian National Energy and Water Supply Regulatory Commission (GNERC) is authorized to monitor the energy sector licenses under existing legislation.

The current Law on Electricity and Natural Gas gives GNERC the authority to regulate in three broad areas:

- **Licensing:** GNERC has the authority to issue, modify, enforce (including the imposition of penalties), and revoke licenses under appropriate terms and conditions for electricity generation, transmission, dispatch, and distribution, and for natural gas transportation and distribution. GNERC is guided in licensing by the:
 - Law on Electricity and Natural Gas;
 - Law on Independent National Regulatory Authorities;
 - Law on Licenses and Permits; and,
 - Licensing rules developed by the Commission.
- **Tariffs:** GNERC has the authority to establish and modify tariffs for electricity generation, transmission, dispatch, distribution, wheeling, import, the services provided by the Electricity System Commercial Operator (ESCO), and the system capacity reserve required to be purchased by the ESCO. In the natural gas subsector, GNERC establishes and modifies tariffs for transportation, distribution, delivery and consumption, subject to certain exceptions.
- **Dispute resolution:** GNERC is to resolve disputes on matters within its competence between and among licensees, importers, exporters, suppliers, consumers, and the ESCO.

GNERC controls protection of license conditions and determines sanctions for violation of license conditions.

The GNERC's Charter, approved early 2008, further details the functions relating to GNERC's regulatory responsibility - for more details see GNERC web site: www.gnerc.org. The members of the Commission, out of which one is the Chairman, are appointed and dismissed by the President of Georgia. Within the frame of its competence, the Commission issues resolutions as normative acts on general issues of regulation, while on individual issues, decisions are issued as normative acts. Operation of the Commission is not an economic activity, though its financing does not depend on the State budget: it originates from annual regulation fees paid by license holders.

Democratic procedures, admitted on international level are used for issuance of resolutions and decisions: at open (public) meetings of the Commission any stakeholder (license holder, client, defenders of clients' rights, representatives of different governmental and nongovernmental organizations) has the opportunity to defend their

interests, express their opinion and present evidences. The decision of the Commission can be appealed at court.

Indicators demonstrating development of the Regulatory body in 2000 – 2010 are provided in the following table:

Development of GNERC 2000-2010¹

Indicators	Unit	2000	2005	2006	2007	2008	2009	2010
Number of Commissioners by the end of the year	Unit	3	2	2	3	4	5	5
Number of employees by the end of the year	“	61	88	90	72	106	106	108
Adopted legal acts	“	99	141	148	65	79	102	208
Among them:								
• Resolution	“	10	31	44	24	37	24	31
• Decision	“	89	110	104	41	42	78	177
Number of departments	“	5	6	6	7	8	10	10
Revenue	Th. GEL	865.2	2083.6	2835.6	4305.3	5968.4	8317.6	8709.3
Expenses	“	736.1	2,063.3	2,561.2	3,715.1	5,609.6	8,227.1	7,491.3
Number of legal acts per employee	Unit	1.62	1.60	1.64	0.90	0.74	0.96	2.3

Though the GNERC has recently re-organized their Staff to focus on monitoring activities, the GNERC still lacks knowledge of international experience in monitoring activities by energy regulators and needs to develop specific procedures for monitoring purposes that the Staff can follow. (See the attached examples, the Market Monitoring Rules from Ireland, Attachment I, Romanian Power Market Commercial Code, Attachment II, and Market Monitoring Presentation ISO-NE, Attachment III.)

Hydropower Investment Promotion Project was requested by the GNERC under the USAID-funded Hydropower Investment Promotion Project (USAID/HIPP) to “assist and support in drafting internal rules for the overall monitoring of the energy companies. Initially Hydropower Investment Promotion Project will support the GNERC in the development of a general framework for monitoring of licensees and for monitoring of competitive markets.” This report provides the draft outline for the GNERC of power market monitoring procedures.

¹ Yearly Reports of GNERC – 2000-2010

II. OUTLINE OF POWER MARKET MONITORING PROCEDURES

I. GENERAL

1. Objectives of the Market Monitoring Procedures are:
 - i. To provide the conditions for the access to the relevant market information for all interested parties
 - ii. To provide a workable system for monitoring the power market
 - iii. To ensure the competitiveness of the power market
2. Goal: the Market Monitoring Procedures are to establish the rules for monitoring and publishing of information, for sanction for market power abuse and for amending the relevant market legislation.

During a special investigation process, the GNERC shall:

- Notify affected parties of the subject of the special investigation, the grounds and timetable for the special investigation;
- Request any supplementary data;
- Receive such supplementary data from the parties, within a pre-defined time period;
- Prepare a preliminary report including its findings and any proposed actions within a predefined time period and send it to the affected parties;
- Receive responses to this preliminary report from affected parties, within a predefined time period;
- Prepare its final report taking which can include any penalties to be imposed for breaches of market rules and recommendations on appropriate action, to external authorities, particularly the Competition Authority;
- Instruct the Transmission System Operator and/or Market Operator to change the Grid Code and Balancing and Settlement Rules, respectively;

In the case of regulatory investigations, the affected parties may appeal to the courts.

II. REPORTING MARKET INFORMATION

- A. Administration of data and reports
 1. Responsibility to determine reporting formats.
 2. Location of reports
 3. Timing of reports

4. Downloading capabilities
 5. Access to data
 6. Pricing of detailed data for sale to interested parties
- B. Reports
1. System Demand
 - i. Historical System Demand (As far back as available)
 - ii. Demand of Distribution companies
 - iii. Forecast Demands for System (by months for next three years)
 - iv. Forecast Demand by Distribution Company (by months for next three years)
 - v. Actual and Forecasted transmission network energy loss (Kwh's and %'s)
 - vi. Actual and forecasted distribution networks energy losses (by company)
 2. Over the counter ("OTC") Trading activity for the period
 3. Day Ahead Market DAM (when created) or Periodic Auctions
 - i. Wholesale Threshold Price
 - ii. Sales Volume by Trader and Total (for each week)
 - iii. Clearing Members Activity
 4. Major outages/congestion (generation and networks) that impacted power market
 - i. Generation
 - ii. Internal transmission
 - iii. International interconnections
 5. Daily Forecasted Physical Notifications
 - i. Total system aggregate electricity production
 - ii. Total system electricity consumption
 - iii. Net export for each interconnection
 - iv. Net import for each interconnection
 - v. Generator outages
 - vi. Transmission outages
 6. The Balancing Market and imbalances
 - vii. Volumes transacted by each Trader for the period
 - viii. Prices for over and under balances for the period
 - ix. Historical, current and projected price on the BM
 7. Ancillary Services (type, amount provided per period, by whom)
 8. The Allocation of the Transfer Capacities

III. MONITORING OF POWER MARKET OPERATIONS

- A. General provisions
- B. Market Operations Requirements

1. Data collection
 2. Information Technology, Telecommunication and Database Systems
- C. Market Monitoring
1. Monitoring Responsibility and Requirements
 - i. Transmission System Operator
 - ii. Distribution System Operators
 - iii. Market Operator
 - iv. GNERC
 - v. Power Market Auditor
 2. Monitoring activities
 - i. Monitoring market operations according to the market-related legislation
 - ii. Monitoring the fulfillment of rules by all parties
 - iii. Identifying non-obedience or anti-competition behavior, with possible remedies
 - iv. Inadequate operation of centralized markets
 3. Market Auditor
 - i. Independent entity
 - ii. Periodic Inspection for Market Anomalies and Abuses of Power
 - iii. Recommends Actions by the GNERC
- D. Evaluation of Individual Power Market Competitiveness
1. Market Competitiveness Analysis
 - i. Initial competitive market identification
 - a. Evaluation of competitiveness
 - b. Development of proof
 - c. Request to Public Procurement Agency for exemption of market players from public procurement requirements
 - d. If approved, developing transitional and permanent market rules
 - e. Declaring start of new competitive market
 - ii. Periodic review of market competitiveness
 - a. Role of the GNERC
 - b. Schedule of reviews/audits
 - c. Role of the market auditor
 2. Identification and evaluation of Market Power and Abuse of Power
- E. Penalties For Market Participants In Cases Of Non-Obedience Or Anti-Competition Behavior
1. Role of the Committee on the Protection of Competition
 2. Unofficial warning by the GNERC
 3. Public warning by the GNERC

4. Penalty (violation of License Conditions)
 5. Restriction of Market Activity by the GNERC
 6. Suspension of Market Activity by the GNERC
 7. Removal of License by the GNERC
- F. Administration of these Procedures
- G. The Process for Reviewing and Approving Amendments to Secondary Rules, Documents and Procedures
1. GNERC is responsible for amending all relevant secondary legislation relating to the power market
 2. Proposals for amending the legislation may be submitted formally to the GNERC
 3. All proposals will be placed on the internet site of the GNERC for at least one month before GNERC decision to approve or disapprove
 4. If GNERC determines that a formal meeting to review the proposals is needed,
 - i. GNERC will inform all interested parties of the proposed changes
 - ii. GNERC will request comments in writing at least one week prior to the holding of the formal meeting
 - iii. Parties can attend the formal meeting only if they have submitted written comments and are prepared to state those comments within the formal meeting
 - iv. GNERC will collect all written and oral comments and prepare a recommendation on modification of the legislation in question on the GNERC website
 5. If the secondary legislation will require modifications to the systems or organization of the parties, the GNERC will provide temporary and permanent provisions to allow time for the parties to complete the required modifications.

The requirements for regulatory reporting vary with the maturity of the market and have two phases:

- **Implementation and initial operation** – when reporting focuses on implementation milestones and identification of design faults. The regulator has to require a series of development reports describing the market's progress toward its steady state;
- **On-going operation** - when reporting examines whether the market is operating effectively and whether there is any inappropriate market conduct.

Implementation and initial operation monitoring

The reports should aim to answer key questions about the development and initial operation of the market, such as the following:

- Has a comprehensive set of market rules been agreed upon between the market participants and market operator?
- Has a comprehensive financial settlement process been agreed upon between the market operator and all market participants?
- Has the market governance structure been agreed upon and implemented, including the market committee and its key advisory committees (such as the proposed operating, development, disputes, metering and audit committees)?
- Does a comprehensive “road map” exist for all market rules, procedures, processes and systems that have been agreed upon between the market operator and the market participants?
- Have the road map and the market operator’s procedures been audited by independent experts?
- Has the “amendment and of market rules” control process for making changes from the road map been audited by independent experts?
- Is there an audit trail proving that the change control procedures have been strictly adhered to since the road map was established?
- Has a pre-implementation audit of the market rules, processes and systems been undertaken immediately prior to launch of the market?
- What is the growth in the number of participants trades/notified contracts?
- How have actual trading prices varied? How and why has the marginal cost changed since the last report?

The main issues which the regulator needs to monitor are as follows:

- I. Financial
 - a. Has the market operator stayed within its agreed budget?
 - b. What are the reasons for variances?
- II. Market operations: Has the market operator:
 - a. Applied the market rules thoroughly?
 - b. Applied the settlements procedures according to the market rules?
 - c. Managed all changes to the market rules systematically, applying the agreed change processes rigorously?
 - d. Met any service obligations specified in the market rules?
 - e. Applied the dispute procedure properly?
 - f. Produced accurate and timely market (ancillary service balancing, cross-border capacities, etc.) prices, settlement volumes and settlement amounts using the agreed market rules for every trading period?
 - g. Monitored market participants’ credit positions against their financial guarantees, warned market participants of any breaches of the

guaranteed credit limits, and taken all subsequent actions required under the rules? Provided complete and timely reports to the regulator or other regulatory bodies?

After the market is effectively operating, regulators should also consider the following issues:

- Ensure that the regulator have all the statutory powers needed to enable them to monitor the market. This entails checking:
 - Ø all existing and draft legislation to ensure that sufficient powers are vested in the regulator;
 - Ø All licences to ensure that all market participants and market, system or asset operators are obliged to provide the regulator with all the data it deems necessary to undertake its regulatory responsibilities and otherwise co-operate with the regulator in any investigations it may undertake.
- ensure that the regulator in particular will have the financial and human resources to enable it not only to monitor the market operationally, but also to enforce any actions that could arise from specific investigations into market practices or procedures;
- Publish the definitive monitoring plan which should include:
 - Ø the roles and responsibilities of each party for reporting during market implementation and thereafter;
 - Ø the broad contents of the development reports, including key milestones, and the timings of such reports;
 - Ø the broad contents of each party's reports (daily, weekly or monthly and annual report) and the timings of such reports; and
- Define the suggested procedures, roles and responsibilities for special investigations and special reports.

Attachment I – Ireland Trading and Settlement Rules

Appendix 1, Part 1

Part 2: Market Report

Report: Market data on a daily basis

This report will contain a summary of pricing, standing and total market data for each half-hour Trading Period.

This report is not confidential.

This report will give the following information:

(C) Pricing (information provided on a Settlement Period basis)

1. Top-Up Price
2. Spill Price

(D) Market (information provided on a Settlement Period basis)

1. Total Energy Generated
2. Total Energy Contracted through the Interconnector
3. Total Tradable Energy (sum of 1,2)
4. Total interconnector capacity allocated (ATC)
5. High frequency Flag value
6. Low frequency Flag value
7. Tolerance levels for the calculation of the Uninstructed Imbalance (high, low, up and down)
8. Daily costs of system constraints (the level and sum of Instructed Imbalance payments across the market)

Proforma Report to each Market Participant xx/xx/2000

Price Information

Trading Period	Top Up Price €/MWh	Spill Price €/MWh		Average Spill Price €/MWh
		Spill Price 1	Spill Price 2	
1 (00:00-00:30)				
2 (00:30-01:00)				
...				
48 (23:30-00:00)				

Proforma Report: Market Information

Trading Period	Total Energy Generated MWh	Total (Imports / Exports) Energy through Interconnector MWh		Total Tradable Energy MWh
		Exports	Imports	
1 (00:00-00:30)				
...				
48 (23:30-00:00)				
Calendar Day Total				

Proforma Report: Interconnector capacity

Trading Day	Market Participant	Total (Imports / Exports) allocated capacity (AFC) on the Interconnector MW	
		Exports	Imports
1	A		
...	B		
	C		
2	A		
	B		
	C		
	D		
Etc			

Proforma: Frequency Flag Value

Trading Period	High frequency flag (Yes/No)	Low Frequency flag (Yes/No)
1 (00:00-00:30)		
...		
48 (23:30-00:00)		
Calendar Day Total		

Proforma Report: Standing Data

Name	Data for Trading Day
Up tolerance level	XX%
High tolerance level	XX%
Down tolerance level	XX%
Low tolerance level	XX%

Proforma Report: Daily system constraints imbalance

Settlement Day	System constraint imbalance MWh	System constraint imbalance costs €
1		
2		
...		
31		
Total Month		

Attachment II – Romanian Power Market Commercial Code

Chapters 15 & 16 Market Reporting, Monitoring, Sanctions, & Market Regulations Modifications

15. Reporting and publishing the market information Introduction

15.1.1. Objectives

15.1.1.1. The objective of this section is to provide the conditions for the access to the relevant market information for the market participants and for other interested parties, in a non-discriminatory, simple, organized and transparent manner. The information is ensured by:

- a) the Market Operator (MO);
- b) the Settlement Administrator (AS);
- c) the Transmission System Operator (TSO);
- d) the Distributors.

15.1.2. Goal

15.1.2.1. In order to achieve the objectives of this section, the rules that govern the obligations of the MO, the Settlement Administrator, the TSO and the Distributors are established related to managing and publishing the relevant information about the different markets and procedures defined in this Commercial Code.

15.2. Generalities

15.2.1. Reporting obligations

15.2.1.1. Managing the relevant information in a transparent manner is the obligation of the MO, the Settlement Administrator, the TSO and the Distributors, taking into consideration that the market participants are counting on this information in order to formulate their offers and to fulfill their obligation of planning, forecasting and scheduling, according to this Commercial Code. If the requested information is missing or is incorrect, but the MO, the Settlement Administrator, TSO or the Distributors, as the case may be, have made reasonable efforts to deliver the correct information on time and in a non-discriminatory manner, then there will be no financial liabilities related to the absence or incorrectness of the information.

15.2.2. Publishing modalities

15.2.2.1. The main sources of market information will be, as the case may be, the respective web-sites of the MO, the Settlement Administrator, TSO or the Distributors.

15.2.2.2. The information on the web-sites mentioned in paragraph 15.2.2.1. will be in the public area, except for the information addressed exclusively to certain market participants, and will be available in an easy-to-download format.

15.2.2.3. When the parties request and pay for the service, the data can be transmitted electronically, using a method convened with the interested party, as soon as the information becomes available.

15.2.3. The periodicity and the reference periods

15.2.2.3.1. The information published according to the provisions of this section will be supplied separately for each relevant period of time, including, for instance, the trading, dispatch or balancing intervals, the trading or delivery days or per week, month, season or year. All the reported data will be updated periodically, each time the information changes.

15.2.2.3.2. The forecasts regarding the future conditions of the market and of the system, such as those referring to the load, the ATC, the available power or the important incidents, will be published periodically and updated as soon as new information, that changes the respective forecasts, becomes available.

15.2.2.3.3. The information referring to the execution prices and volumes on the DAM, the BM, the scheduling process, the purchase/procurement of ancillary services and network losses, the transactions on the transfer lines and the settlement will be made available as soon as possible after the clearing/closing of the corresponding market or of another relevant process.

15.3. Reports

15.3.1. The DAM

15.3.1.1. The information regarding the DAM will be delivered for each Trading Interval of the Delivery Day. The reports regarding the DAM must be updated each time the information changes.

15.3.1.2. The following information will be made available by TSO not later than 08:00 a.m. on the last trading day that precedes a delivery day:

- a) the consumption forecast for the NES;
- b) the available production capacity;
- c) the volume of the scheduled exports and imports, separately for each Border Trading Zone;

15.3.1.3. The following information will be made available by the MO not later than 08:00 a.m. on the last trading day that precedes a delivery day:

- a) the ATC for each Border Trading Zone; and
- b) the volume of Priority Production assigned according to section 13.

15.3.1.4. The following information will be made available by the MO when issuing trade confirmations according to section 5, separately for the National Trading Zone and for each Border Trading Zone having a MCP different from the National Trading Zone's MCP:

- a) the MCP;
- b) the total volume of the transactions concluded according to section 5;
- c) the volume and the direction of the energy exchange between the National Trading Zone and each Border Trading Zone having a MCP different from the National Trading Zone's MCP.

15.3.2. The Physical Notifications

15.3.2.1. The information regarding the Physical Notifications will be published for each Dispatch Interval of the Delivery Day. All the reports will be updated each time the information changes.

15.3.2.2. After the approval of the Physical Notifications, but not later than 05:00 p.m., TSO publishes the following information, separately for each Dispatch Interval:

- a) the total (aggregate) electricity production;
- b) the total national electricity consumption:
 - i. corresponding to the suppliers' Physical Notifications;
 - ii. corresponding to TSO's forecast;
 - iii. the net export for each Border Trading Zone;
 - iv. the net import for each Border Trading Zone.

15.3.2.3. The updated information regarding the realized consumption, as well as the realized exports and imports, will be made available by TSO.

15.3.3. The BM and the imbalances

15.3.3.1. The information will be supplied for each Dispatch Interval of the Delivery Day, separately for Upward Regulation and Downward Regulation. All the reports will be updated each time the information changes.

15.3.3.2. The following information will be made available by TSO right after the final verification of the offers for the Delivery Day:

- a) the Required Margin (necessary reserve), separately for the secondary, fast tertiary and slow tertiary regulation;
- b) the Available Margin for the secondary regulation; and
- c) the available volume of Balancing Energy corresponding to the fast and slow tertiary regulation.

15.3.3.3. The following orientation information will be made available by TSO in maximum fifteen (15) minutes after the end of the Dispatch Interval:

- a) the total volume of balancing energy, separately on type, used during each dispatch or balancing interval for the system balancing;
- b) the total volume of balancing energy, separately on type, used during each dispatch or balancing interval for the congestion management;
- c) the highest (lowest) marginal price for the Balancing Energy corresponding to the upward (downward) secondary regulation;
- d) the highest (lowest) price accepted for the Balancing Energy corresponding to the upward (downward) fast tertiary regulation;

- e) the highest (lowest) price accepted for the Balancing corresponding to the upward (downward) slow tertiary regulation.

15.3.4. The Procurement of Ancillary Services

15.3.4.1. The information will be supplied for each procurement period, according to section 8.

15.3.4.2. Each Network Operator will publish information regarding the quantity of ancillary services or network losses that must be procured according to section 8.

15.3.4.3. The following information will be made available by the Network Operator not later than the day that comes after the Trading Day during which the ancillary services or network losses have been procured by the Network Operator according to section 8:

- a) the quantity of ancillary services or network losses, as the case may be, requested by the Network Operator;
- b) the quantity of ancillary services or network losses, as the case may be, procured by the Network Operator;
- c) the price(s).

The Allocation of the Transfer Capacities

15.3.5.1. The information regarding the allocation of the transfer capacities will be supplied for each auction period, for each direction/sense (import or export) and for each group of interconnections.

15.3.5.2. The Market Operator will publish the available information regarding the ATC according to section 9.

15.3.5.3. The following information will be made available by the Market Operator not later than 02:00 p.m. on the day during which takes place the auction for the allocation of the transfer capacities:

- a) the quantity of ATC offered to the auction participant ;
- b) the total volume of the offers submitted;
- c) the quantity of ATC allocated to the auction participants.

16 General and Final Conditions

16.1 General provisions

16.1.1 Section 16 includes provisions applicable to all the parties mentioned in the individual sections of this Commercial Code, including the Market Operator (MO), the Transmission System Operator (TSO) and the Settlement Administrator (SA).

Market operation

16.2.1 Data and reports

16.2.1.2 The data and the reports that will be presented to the Competent Authority by the MO, the Settlement Administrator and TSO according to this Commercial Code, other than the data which are the subject of the specific requirements of the Commercial Code as regards the transmittal modality, will be transmitted in written, directly, through fast courier firms or by fax.

16.2.1.3 The notifications transmitted to the parties shall be addressed to the persons appointed as responsible for receiving the respective notifications.

16.2.1.4 The data requested according to this Commercial Code will be presented in the format specified by the Commercial Code or, as the case may be, in the format specified by the MO, TSO or the Settlement Administrator.

16.2.2 The Information, Telecommunication And Database Systems

16.2.2.1 The MO, TSO and the Settlement Administrator will each establish the adequate information systems, including the hardware and software requirements, which fulfill all the requirements of the following Systems: Trading, Scheduling, Balancing Market and Settlement, according to this Commercial Code.

16.2.2.2 The MO, TSO and the Settlement Administrator will, each, establish adequate interface protocols for the communication between the parties and the Trading System, the Scheduling System, the Balancing Market System and the Settlement System, using the corresponding international standards, and will make available these interface protocols for all the requesting parties.

16.2.2.3 Supplementary to the parties' responsibility of fulfilling the provisions of this Commercial Code regarding the data communication, the parties must realize adequate systems for an efficient communication with the MO's Trading System, TSO's Scheduling System and Balancing Market System and the Settlement Administrator's Settlement System.

16.2.2.4 The MO, TSO and the Settlement Administrator will communicate the parties in due time about the technical features of the information systems that they are obliged to implement according to paragraph 16.2.2.3.

16.2.2.5 The MO, TSO and the Settlement Administrator will each set up and maintain databases of all the requested information, supplied either by the MO, TSO or the Settlement Administrator or by another party to the MO, TSO or the Settlement Administrator, according to this Commercial Code. Each database will keep an identical and complete copy of all the corresponding supplied or retained data. The format for keeping the registrations will be established by the MO, TSO or the Settlement Administrator, as the case may be.

16.3 Market monitoring

16.3.1. The monitoring responsibility

16.3.1.1. The Competent Authority, together with the MO and TSO, will take the necessary measures for:

- a) monitoring the markets operation, according to this Commercial Code;
- b) monitoring the fulfillment, by the parties involved, of all the rules and procedures of this Commercial Code, as well as of any other rules and procedures established according to its provisions;
- c) identifying any case of non-obedience or anti-competition behaviour.

16.3.1.2 The MO and TSO will inform the Competent Authority about any aspect that leads to:

- a) an inadequate operation of the centralized markets;
- b) an anti-competition or inadequate behaviour of any market participant, coming up with possible solutions to remedy the situation.

16.3.1.3 The solutions mentioned in the previous paragraph will include, as the case may be:

- a) proposals to modify the Commercial Code or any other related regulations and procedures;
- b) proposals to penalize the participants whose behaviour has been noticed as inadequate.

16.3.1.4 The market monitoring activity performed by the MO and TSO will be organized within distinct departments, based on the procedures approved by the Competent Authority, and will be focused on monitoring the electricity/services trading activities on the centralized markets administered by the MO and the TSO.

16.3.1.5 The MO and the TSO regularly transmit to the Competent Authority, in an agreed upon format, electronically or in writing, as the case may be, by postal services, the necessary information to allow the Competent Authority to evaluate the efficiency of the wholesale market and the reciprocal influences between specific the markets named in section 3.1.4., as components of the wholesale market. The transmitted information include, but not necessarily limit at: physical notifications, preliminary/final notifications; hourly offers of the BRP and BM participants, the merit order on the DAM, BM and BRP, respectively, the marginal prices for the balancing energy, consumption prognoses, settlements, availability declarations, as well as reports containing syntheses of some information of this kind.

16.3.1.6. The information related to par. 16.3.1.5. are object of specific procedures issued by the Competent Authority.

16.3.1.7. Upon request by the Competent Authority, MO and TSO send the the Competent Authority history data from the database owned by the two operators, in an agreed upon format, for the development of specific analyses by the Competent Authority.

16.3.1.8. The Market and BRP participants will periodically draw up and send to the Competent Authority a report regarding the transactions concluded on the markets component of the wholesale market and other information related to them, in order to allow the estimation of those market operation and the market behavior of the

respective entities. The reports content, format, transmission periodicity and the way of transmission are set up by the Competent Authority in specific procedures..

16.3.2. Penalties For Market Participants In Cases Of Non-Obedience Or Anti-Competition Behaviour

16.3.2.1. The Competent Authority analyzes, based on its own procedure, any situation that reflects an inadequate behavior of one or more market participants, noticed by:

- a) the MO/TSO, according to the provisions of paragraph 16.3.1.;
- b) the market monitoring department within the Competent Authority, as a result of its direct market monitoring activity;
- c) any other market participant.

16.3.2.2. If the analysis performed according to the provisions of paragraph 16.3.2.1 proves that one or more market participants have not respected the provisions of this Commercial Code or other rules and procedures established according to its provisions or have behaved in an anti-competition manner, then, depending on the seriousness of the facts, the Competent Authority will:

- a) warn the respective participants to obey the rules, to behave in a competition manner and to remove any causes for not being able to act as requested;
- b) penalize the respective parties, according to the provisions of the law;
- c) exclude immediately, from one or more centralized markets organized according to this Commercial Code, the participant found guilty.

16.3.2.3. If the results of the analysis performed according to the provisions of paragraph 16.3.2.1. confirm that one or more market participants have broken a legal provision regarding the competition and the transparency or confirm an abuse of dominant position on the market, then the Competent Authority informs the corresponding ministry and the Competition Council about these aspects.

16.4 Administration

16.4.1 The Competent Authority is the administrator of this Commercial Code, in this quality being entitled to approve any rule proposed in order to modify the provisions of this Commercial Code.

16.4.2 The proposal to modify the provisions of this Commercial Code may be suggested to the Competent Authority by one of the following parties:

- a) Licensed Party;
- b) Associations of electricity consumers.

16.4.3 The approval or the rejection, by the Competent Authority, of the proposals to modify one or more provisions of this Commercial Code, submitted by the parties mentioned in the previous paragraph, is the consequence of analyzing them according to the provisions of „The procedural norms regarding the issuance of regulations”, approved by the Competent Authority.

16.4.4 The MO or any other requested party, according to the provisions of this Commercial Code, will not implement any modification of the Commercial Code until the Competent Authority approves and publishes the respective modification. Any such

modification will become effective starting with the date specified in the order or decision issued by the Competent Authority.

16.4.5 If a modification is approved by the Competent Authority, the MO, TSO or any other requested party, according to the provisions of the Commercial Code, will be responsible for implementing the modification efficiently and on time.

16.4.6 In order to increase the efficiency of applying the regulation framework provided by this Commercial Code, there operates the Electricity Market Committee, which has the main attributions specified in Order no. 523/30.07.2004 of the Ministry of Economy and Commerce.

16.5 The Approval Of The Secondary Rules, Documents And Procedures

16.5.1 The parties which are requested to elaborate framework-contracts, rules and procedures, according to the provisions of this Commercial Code, or to specify the content or the format of any information submitted according to this Commercial Code, will do so on time. After elaborating it, the designated party will submit the respective document to the Competent Authority for approval.

16.5.2 The approval, by the Competent Authority, of the document mentioned in paragraph 16.5.1 is the consequence of analyzing it according to the provisions of „The procedural norms regarding the issuance of regulations”, approved by the Competent Authority.



Role Of The Market Monitor: ISO New England

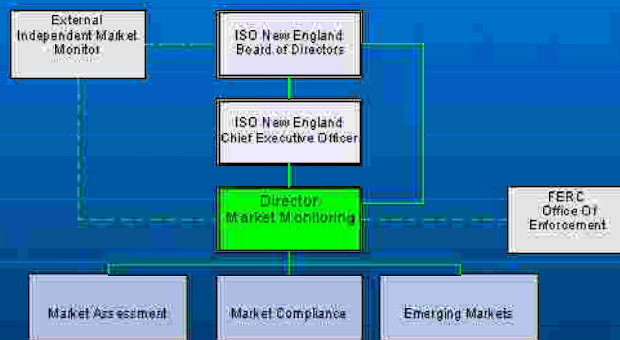
Dr. Hung-po Chao
Director, Market Monitoring

FERC Open Meeting • Washington, D.C. • May 18, 2006

Role of the Market Monitor

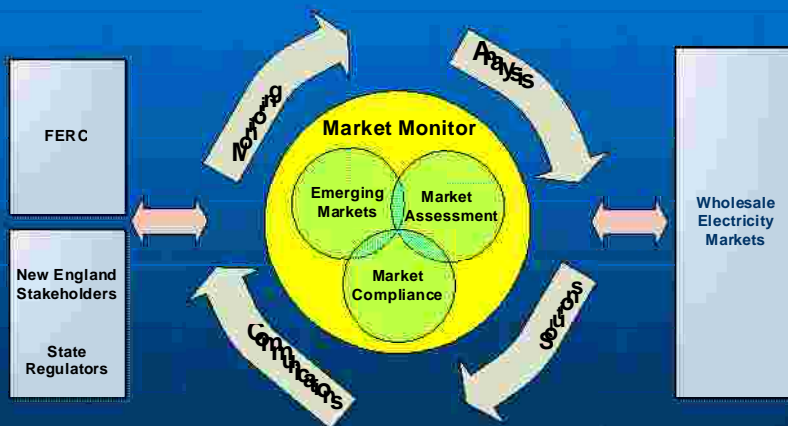
- n **Provide critical functions in support of FERC, state regulators and New England stakeholders to ensure the success of the wholesale electricity markets**
- n **Successful wholesale electricity markets:**
 - Support reliable operations
 - Produce competitive prices
 - Attract sufficient infrastructure investment

Market Monitoring in the RTO/ISO Organization

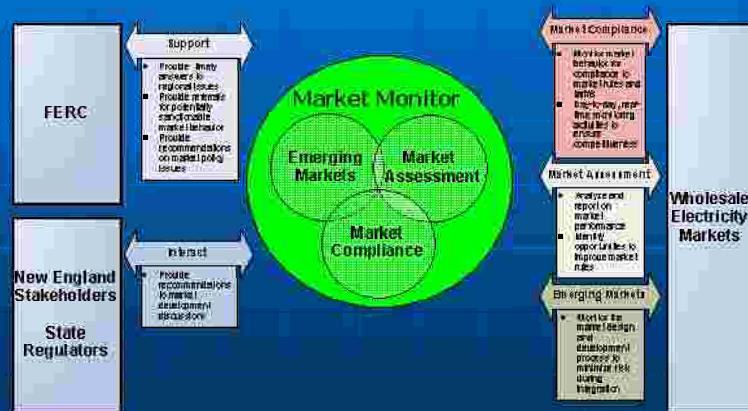


Reporting structure reinforces the critical commitment to market success of the Board of Directors and executive management

Role of the Market Monitor in New England



Market Monitor's Tasks



Market Monitor's Resources

- n **Direct access to the Board of Directors**
 - Ensures the independent position within the RTO/ISO
 - Reinforces senior management team's commitment
- n **Consultation with Independent Market Monitor**
- n **Direct communication link to FERC's Office of Enforcement**
- n **12 department staff members**
 - Economists, engineers, business and operations analysts
 - Dedicated IT support
 - n Production software for on-call duty/procedure
 - n Market analysis and simulation tools

Market Monitor's Current Priorities

- n 2006 Summer Monitoring Plan
- n Integration of Ancillary Services Market Phase II into established energy markets (Fall 2006)
- n Cold Weather Operations (Winter 2006/07)
- n Forward Capacity Market
- n Enhance communications links
 - FERC
 - State regulators
 - Market participants

Successful Markets Observe Fundamental Laws

KEEP the Lights on

- n Kirchoff's laws (physical)
- n Economic law of supply and demand
- n Energy Policy Act
- n Power Act



Supplemental Information

Role of the Market Monitor

- n **Critical informational and analytic resource to the RTO/ISO, FERC, state regulators, and New England stakeholders, including:**
- Providing assessments of how the markets are performing
 - Identify the extent to which market prices reflect competitive outcomes versus market power abuses
 - Conduct periodic and ad hoc reporting on the performance of the markets and/or market products
 - Assess the impact of internal implementation decisions on market performance

S1

Ensuring Successful Markets Requires

- n Assessing current and proposed rules and procedures for appropriate market incentives and performance results
- n Recommending changes in rules and procedures to maintain or improve market efficiency
- n Identify potential anti-competitive behavior by market participants

S2

Roles of the Market Monitor in New England

- n Ensure success of the wholesale electric markets through a continuous process flow of:
 - Monitoring
 - Analysis
 - Solutions
 - Communications
- n Enhance market performance through interaction and feedback
 - FERC
 - New England Stakeholders and state regulators
 - Wholesale markets
- n When market flaws are detected, the Market Monitor is an active participant in the solution

S3

Tasks of the Market Monitor

n Wholesale Electric Markets

- Real-time monitoring to assure competitiveness and compliance to market rules and tariffs
- Analyze and report on market performance, and identify opportunities to improve market rules
- Monitor/review market development and integration to minimize risk

n FERC

- Provide timely answers to specific regional issues
- Refer potentially sanctionable market behavior
- Provide recommendations on market policy issues

n New England Stakeholders and State Regulators

- Provide recommendations on regional market development discussions S4

Current Market Monitoring Priorities

n Implement enhanced, real-time, day-to-day monitoring including:

- Comprehensive energy market review, including key market indicators
- Review of interrelationships between electric and gas/oil markets

n Continue assessment of Ancillary Services Markets and their impacts on the current energy markets prior to integration

- Reviews of interrelationships between the energy market and other components (e.g., Regulation Market)

n Enhance communication with market participants to enable a feedback loop of market performance issues from a sector perspective

S5

USAID Hydropower Investment Promotion Project (USAID-HIPP)

Deloitte Consulting Overseas Projects - HIPP

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